

cularly when between a growing crop, since a check from cold may be given to its vegetation. Whereas it appears, plants receiving a shower of rain derive both heat and moisture from the same, provided the soil be left undisturbed for a time, until the land has again attained that degree of dryness when cultivation may be had recourse to with increased advantage.

"Again, necessity of draining soils and situations where more moisture is retained than is required by growing crops is here proved, because if such lands be not drained, the escape of the extra water can only be effected through the means of evaporation, therefore at the loss of heat, and at the expense of great delay in the maturing of the crops, if not of their entire destruction.

"I shall now touch upon another subject—the disease in the potatoes. The same instruments, the thermometers, have exhibited one cause of the decay in the potatoes, and after this manner.

"On July 19, 1845, weather being fine and wind south-west; time, between one and two o'clock.

Thermometer in the air, and shaded ..	72	deg.	F.
Thermometer 4 in. deep in the earth ..	72	"	"
Thermometer 20 in. ditto.....	65	"	"

"And on August 16, 1845, weather cloudy; wind north; time, at twelve o'clock—

Thermometer in the air shaded.....	58	deg.	F.
Thermometer 9 in. deep in the earth...	55	"	"

"We here have in August a difference of temperature from that which prevailed in July equal to 10 degrees. This suddenness change of from heat to cold, and particularly at such a period of the year, must have injurious effects. We ourselves know, from every day's experience, the consequences of such changes upon our own bodies, by producing colds from the too immediate stopping of perspiration. And may not growing plants experience something of the same kind by their vegetation being so suddenly checked. The conclusion I have arrived at is, the great want of sun throughout the summer months, the long continuance of the wind from the north and north-east—added to these, the check above stated—are quite sufficient causes of the disease now so generally prevalent. Too many gentlemen are aware that the potatoe is not the only crop which experienced injury this year, since the wheat, many fruits, and the hop, are alike deficient in what was presumed, from early appearances, would be their produce.

"It has been remarked by many agriculturists, that the potato and the wheat are found more diseased in the rich and highly manured lands than in the poor. Why is this? Because these lands were like an overfed stomach, and the difficulty of digestion from the want of heat was proportionally the greater.

"Believe me, sir,

"Yours very respectfully,

"W. BLAND.

"Hartlip, Sittingbourne, Dec. 22, 1845."

The Canadian Agricultural Journal.

MONTREAL, MARCH 2, 1846.

It may be very amusing to read the reports of experiments made in agriculture, and hear of large products resulting from these experiments. Every practical farmer knows, however, what degree of credit he should give to such statements. There is no doubt that the produce of land may be vastly increased by judicious cultivation, draining, and manuring; but all the art of man cannot increase this produce beyond what is reasonable and possible for land to yield. When, therefore,

we see reports of 78½ bushels of wheat to the acre, it creates doubt in our mind of the correctness of other parts of such reports that might be true. We do not believe that one English acre of land has ever produced in America 78½ bushels of wheat in one crop, that is (calculating the bushel to weigh 65 lbs) 5102½ lbs of wheat to the acre, besides the straw. Hence an acre would yield of pure wheat 2 tons, 5 cwt., 2 qrs., and 6½ lbs. Now it is the general opinion that a good strong crop of wheat will yield more than double the weight of straw that it will of grain. At this rate the straw on one acre should weigh at least 4 tons, 15 cwt., giving a total yield of straw and grain of over 7 tons to the acre, a yield, we hesitate not to state, which has never been produced in N. America, under any circumstances. Half this produce is a very large one, and can only be obtained by good cultivation on the best wheat soils. It would be a matter of no difficulty to provide food for the human family if even 50 bushels of wheat could be raised on one acre by the most judicious cultivation, and if half that quantity was raised on an average upon the wheat lands of Western Canada we should never have required to import either wheat or flour from the United States. We have often observed how necessary it is that reports of experiments should be stated fully and correctly, in order that they may be of any use or instruction to those who read them. We have constantly seen in these reports, most essential circumstances not taken any notice of; in fact, points not noticed upon which the whole result of the experiment may have depended. Practical farmers would not act thus in making reports, unless they wished to disguise the principal facts. Raising a crop of wheat on glass without any soil or covering, except of straw, is another experiment which, if successful, would do away with the necessity of cultivation, draining, manure, or even good soil. We might as well grow wheat upon a rock, without any cultivation, except to cover it with straw (the quantity required is not stated) as to plough, drain, and manure the best of soil in order to insure a good crop. It is well known that the principle use of ploughing, harrowing, draining, and manuring land for growing crops, is, that the crop should be able to extend its roots, find nutriment in the soil, and also find support to sustain it in an erect position. Would this be possible on a rock, or a sheet of glass? We consider the